

In the Specification:

Applicants hereby replace the caption of paragraph [0001] on page 1 with the following new caption:

[0001] This application is the national phase under 35 U.S.C. § 371 of PCT International Application No. PCT/US2005/009928, which has an International filing date of March 23, 2005 and designated the United States of America, which in turn claims the benefit of priority to U.S. Patent Application Serial Number 60/555,916, “Lytic Enzymes and Spore Surface Antigen for Detection and Treatment of *Bacillus Anthracis* Bacteria and Spores” (Fischetti, et. al.), filed March 24, 2004 and incorporated herein by reference in its entirety.

Applicants hereby replace the caption of paragraph [0002] on page 1 with the following new caption:

~~FIELD OF THE INVENTION~~ TECHNICAL FIELD

[0002] The present invention relates to the identification and characterization of environmental bacteriophages infecting *Bacillus anthracis*. Specifically, the invention relates to certain isolated sequences for the gamma ( $\gamma$ )-phage and the W-phage of *B. anthracis*, nucleic acids of each genome, nucleic acids comprising nucleotide sequences of open reading frames (ORF's) of its genome, and polypeptides encoded by the nucleic acids.

Applicants hereby replace the caption of paragraph [0013] on page 6 with the following new caption:

~~SUMMARY~~ OVERVIEW

[0013] Two bacteriophages of *B. anthracis*, bacteriophage gamma ( $\gamma$ ) and bacteriophage W, can be isolated. Applicants have isolated and characterized various bacteriophages active against *B. anthracis*. The  $\gamma$  and W bacteriophages for *B. anthracis*, the nucleic acid sequence of these bacteriophage genomes, portions of the nucleic acid sequence of the bacteriophage genome (e.g., a portion containing an open reading frame), and proteins encoded by the nucleic acid sequences, as well as nucleic acid constructs

comprising portions of the nucleic acid sequence of the bacteriophage genome, and host cells comprising such nucleic acid constructs are provided herein.

Applicants hereby replace the caption of paragraph [0034] on page 12 with the following new caption:

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0034]** The invention relates to the identification and characterization of an environmental bacteriophage infecting both *B. anthracis* and a transition state *B. cereus* strain, and thus establishing a means for genetic exchange between the two. Lysogeny of either organism exerts profound phenotypic changes and with *B. anthracis*, involves the acquisition of *B. cereus*-like features.

Applicants hereby replace the paragraph [0073] on page 27 with the following text:

**[0073]** A Fos resistance gene (ORF 1441, or “Gp41”) is found in  $\gamma$  and appears to be derived from a similar sequence in Ba prophage  $\phi$ 4537. This is based on 99% identity at the DNA level between *gp39*, *pg40* and *gp41* and sequences in a Ba prophage. The DNA surrounding this region of homology is quite divergent, suggesting the acquisition of the island by  $\gamma$  through recombination with the  $\phi$ 4537 prophage. Since there is no obvious homology in W to have supported this insertion, it has likely arisen via a illegitimate mechanism.